

Appl. No.: 10/823,310
Reply to Office Action of: September 20, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the present application:

Listing of Claims:

1. (canceled)

2. (currently amended) A ball grid array IC socket ~~as defined in Claim 1,~~
comprising:

an insulative housing having an IC package mounting surface on one face thereof and a circuit board mounting surface on a face opposite the IC package mounting surface and a plurality of contact housing apertures extending from the IC package mounting surface to the circuit board mounting surface and configured to receive a plurality of contacts; and

a plurality of contacts; the contacts including contact arms that protrude from the first surface in a unidirectionally bent manner for contacting contact portions of an IC package mounted on the IC package mounting surface, fixing portions for engaging the interiors of the plurality of contact housing apertures, solder ball pads that protrude from the circuit board mounting surface for soldering solder balls thereto for connecting to a circuit board, and transition portions provided between the fixing portions and the solder ball pads for displacing the solder ball pads in substantially the same direction as the direction in which the contact arms are bent,

wherein the transition portions further comprise fillet stops for preventing fillets from forming on the transition portions during soldering of the solder balls on the solder ball pads.

3. (original) A ball grid array IC socket as defined in Claim 2, wherein the fillet stops comprise vertical portions of the transition portions substantially perpendicular to the circuit board mounting surface.

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4. (original) A ball grid array IC socket as defined in Claim 2, wherein the fillet stops comprise inclined transition portions.

5. (currently amended) A ball grid array IC socket ~~as defined in Claim 1~~
comprising:

an insulative housing having an IC package mounting surface on one face thereof and a circuit board mounting surface on a face opposite the IC package mounting surface and a plurality of contact housing apertures extending from the IC package mounting surface to the circuit board mounting surface and configured to receive a plurality of contacts; and

a plurality of contacts; the contacts including contact arms that protrude from the first surface in a unidirectionally bent manner for contacting contact portions of an IC package mounted on the IC package mounting surface, fixing portions for engaging the interiors of the plurality of contact housing apertures, solder ball pads that protrude from the circuit board mounting surface for soldering solder balls thereto for connecting to a circuit board, and transition portions provided between the fixing portions and the solder ball pads for displacing the solder ball pads in substantially the same direction as the direction in which the contact arms are bent,

wherein the housing further comprises protrusions that extend from the circuit board mounting surface to the ends of the solder ball pads for preventing fillets from forming on the transition portions during soldering of the solder balls on the solder ball pads.

6. (currently amended) A ball grid array IC socket ~~as defined in Claim 1~~
comprising:

an insulative housing having an IC package mounting surface on one face thereof and a circuit board mounting surface on a face opposite the IC package mounting surface and a plurality of contact housing apertures extending from the IC package mounting surface to the circuit board mounting surface and configured to receive a plurality of contacts; and

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a plurality of contacts; the contacts including contact arms that protrude from the first surface in a unidirectionally bent manner for contacting contact portions of an IC package mounted on the IC package mounting surface, fixing portions for engaging the interiors of the plurality of contact housing apertures, solder ball pads that protrude from the circuit board mounting surface for soldering solder balls thereto for connecting to a circuit board, and transition portions provided between the fixing portions and the solder ball pads for displacing the solder ball pads in substantially the same direction as the direction in which the contact arms are bent,

wherein the solder ball pad is of a discoid shape having a diameter slightly smaller than that of the solder ball.

7. (currently amended) A ball grid array IC socket as defined in ~~Claim 1~~ Claim 2, wherein the contact arms are bent from a side edge of the base fixing portions at a bend and extend upward from the bend.

8. (currently amended) A ball grid array IC socket as defined in Claim 7, wherein the contact arms have an arcuate upper surface for connecting with the contacts of the IC package ~~30~~ at the distal ends of the contact arms.